



A **stronger** economy.

A **healthier** environment.

SmartWay
Transport Partners
DELIVER.



Granite State Clean Cities Coalition
October 26, 2007



Background

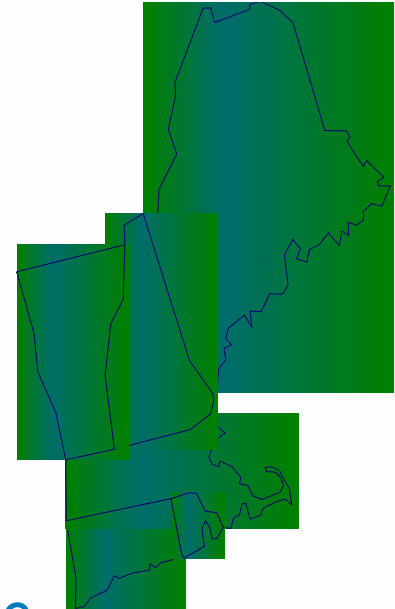


Context

- **Growing concern regarding oil supplies, diesel emissions, and greenhouse gas buildup**
- **Commercial freight truck and rail:**
 - Travel over 200 billion miles
 - Consume over 55 billion gallons of fuel annually
 - Account for ~20% of transportation-related energy use
 - Produce approximately 350 million metric tons of CO₂
 - Expected to expand dramatically over next decade

Why Diesel ?

- **Health:**
 - asthma rates
 - respiratory/heart problems
 - probable carcinogen
- **Standards:**
 - Southwest CT fails $PM_{2.5}$ (Boston close behind)
 - CT, MA and RI, and coastal ME & NH fail ozone standard (summertime smog)
- **Potential:**
 - Efficient fuel
 - Biodiesel alternatives

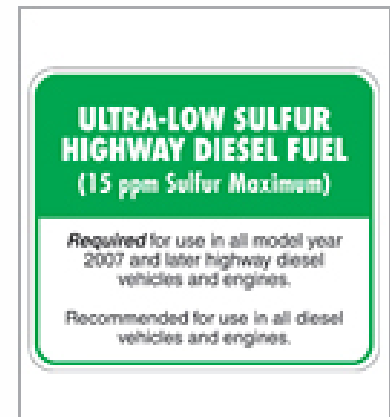


Why Trucks?

- **Northeast:** 40% NO_x and 51% PM from heavy-duty trucks
- **State idle limits:**
MA, CT, NH & now RI



- **New fuel & engines = 95% cleaner, BUT**
 - Need to conserve fuel supplies
 - Need to address legacy fleet
 - Keep businesses viable





The Partnership

Partnership

- Between the ground freight industry and EPA
- Help companies improve fuel efficiency and reduce emissions
- Launched February 2004 with ATA and the industry
 - Charter Partners include: Schneider, Swift, YRC, UPS, FedEx, Coca Cola, IKEA, Home Depot
- Now over 650 partners!



Motivations

Freight carrier goals:

- Reduced fuel consumption
- Public recognition
- Better public image
- Better relationship with government

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Freight shipper goals:

- Better understanding & control of transportation foot print
- New ways to promote corporate citizenship & sustainable business practices

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EPA goals:

- Reduced CO2 emissions
- Improve energy security
- Better relationship with the freight industry

Freight shipper goals:

- Better understanding & control of transportation foot print
- New ways to promote corporate citizenship & sustainable business practices

EPA's Agenda

By 2012, eliminate:

- **33 Million metric tons of CO₂ annually**
- **200,000 metric tons of NO_x annually**
- **150 million barrels of oil annually**
- **Particulate matter and air toxics**

Your Agenda

- **Thrive** by saving fuel and time
- **Get free help** from EPA
 - Expertise
 - Tools
 - Support
 - Grant access
- **Earn positive press** from EPA and others
- **Be part of a synergy** for progress between shippers, carriers, and logistics firms

How do I participate?

Carriers:

- Join
- Analyze operations
- Set 3-year fuel conservation & efficiency goals
- Report progress yearly

Shippers:

- Join
- Analyze operations
- Set 3-year goals, including shipping more freight with SmartWay Partner Carriers
- Report progress yearly

(Other Partners)

Logistics Providers

Affiliates

Equipment vendors

Banks

Railroads

Truck Stops

Freight Logistics Environmental & Energy Tracking Performance Model

- Develops a baseline of *ACTUAL* emissions for a given year for CO₂, NO_x, and PM
- Estimates possible fuel savings and emissions reductions from various strategies
- Calculates a SmartWay “score” based on the technologies and strategies used
- Simplified version for small fleets (< 20)
- Quick cheat: Savings Calculator

www.epa.gov/otaq/smartway/calculator/loancalc.htm

SmartWay Transport Partners



Some Major Shipper Partners:

- Wal-Mart
- Tyson Foods
- Nike
- Walgreen
- Dell
- Office Depot
- Sharp Electronics
- IBM
- Whirlpool
- Schering-Plough
- IKEA
- Coca-Cola
- Home Depot
- Owens Corning
- Johnson & Johnson
- JC Penney
- Panasonic
- Kimberly-Clark
- Chiquita
- Hewlett Packard
- General Nutrition Centers
- Kohl's
- Nestle Purina Pet Care
- Tatung

**+ > 400 Trucking
Companies!**

New England SmartWay Partners

Partner	Location	Category
Barrett Distribution	Franklin, MA	Carrier
Braun's Express, Inc.	Hopedale, MA	Carrier
Clean Diesel Technologies	Stamford, CT	Shipper
Dennis K. Burke, Inc.	Chelsea, MA	Shipper-Carrier
Green Mountain Coffee Roasters	Waterbury, VT	Carrier
Hannaford Trucking Co.	Portland, ME	Carrier
Hartt Transportation	Bangor, ME	Carrier
Lily Transportation Co.	Needham, MA	Carrier
Maine Motor Transport Assn.	Augusta, ME	Affiliate
Mass. Motor Transport Assn.	Boston, MA	Affiliate
New England Retail Express	Stoughton, MA	Carrier
PAF Transportation, Inc.	Scarborough, ME	Carrier
Pottle's Transportation, Inc.	Hermon, ME	Carrier
Refrigerated Food Express	Avon, MA	Carrier
Regency Transportation, Inc.	Franklin, MA	Carrier
RFX, Inc.	Avon, MA	Logistics
Safe Handling, Inc.	Auburn, ME	Carrier
TrucksOnly.com	Warwick, RI	Affiliate
United Natural Foods	Dayville, CT	Carrier



Technologies and Strategies

For Carriers

- Idle reduction
- Speed control
- Driver training & incentives
- Improved aerodynamics
- Advanced tire technology
- Advanced lubricants
- Improved freight logistics
- Weight reduction
- Intermodal alternatives

Idle Reduction Technologies

Average fuel savings

.8 gal/hr

Emissions Controlled

CO₂, NO_x, and PM

- Automatic Shut-Down/Start Up Systems
- Auxiliary Power Unit/Generator Sets
- Diesel-Driven Heating Systems
- Battery-Powered Systems
- Truck Stop Electrification

www.epa.gov/otaq/smartway/idlingtechnologies.



Improved Aerodynamics

Average fuel savings

5 - 7%

Emissions Controlled

CO₂, NO_x

- Trailer Side-skirts
- Gap Reducer
- Boat Tail



Low Rolling Resistance Tires

Single Wide Base and Improved Duals

Average fuel savings

Trucks: 4 - 5%

Emissions Controlled

CO₂, NO_x

- Single-wide tires and aluminum wheels
 - Reduced rolling resistance
 - Reduced weight
- Low rolling resistance duals



Other Strategies

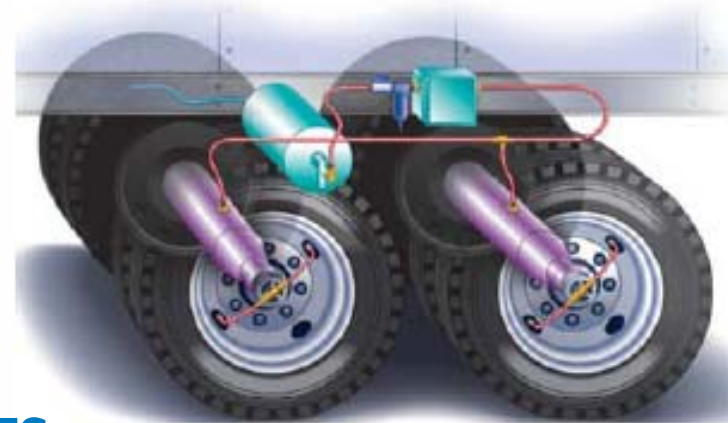
- Speed control
 - For each 1 mph increase, 2% lower mpg
- Weight reduction
 - For each 1,000 lbs, .4% lower mpg
- Low-viscosity lubricants
 - 2 – 4% higher mpg
- Tire pressure
 - For each 10 psi under, 1 - 1.5% lower mpg
- Driver training: progressive shifting, mpg standard, idle monitoring... auto shutdown.
- Biodiesel, hybrid drivetrains, certified trucks & trailers, emission controls...

Automatic Tire Inflation

P.A.M. Transport:

- Tires are #2 non-payroll cost (behind fuel) and #1 maintenance cost
- Cost savings: almost 70% due to:
 - Fewer failures
 - Ability to drive after puncture
 - Reduced wear
 - Better fuel economy

Braun's Express: 3% mpg savings



\$\$ Driver Incentives \$\$

- Monetary or other incentives for:
 - Low idling hours or idling %
 - High miles per gallon
- Pottle's Transportation, Bangor ME
 - Drivers get 50% of \$ saved for exceeding efficiency target (industry average, based on season)
 - Drivers average \$90/quarter; Pottle saves \$24,000/year
 - Started with 8 APUs, adding more

For Shippers

- Ship more freight with SmartWay Carrier Partners
 - FLEET model imports carrier scores
 - “Dear Carrier” letter and contract template
- Preferential docking for SmartWay Partners
- Idle reduction at docks
- Driver comfort stations
- Improved pick-up & delivery scheduling



ATTENTION DRIVERS:

 **GREEN MOUNTAIN COFFEE ROASTERS**

IS A MEMBER OF THE
EPA'S SMARTWAY TRANSPORT PARTNERSHIP.

**GREEN MOUNTAIN HAS AN
IDLE REDUCTION POLICY.**

PLEASE TURN OFF YOUR ENGINES
WHILE ON SITE AWAITING
TO BE LOADED/UNLOADED.

For Shippers (cont.)

- Full truck loads
- Warehouse improvements
- Electric or alt fuel forklifts
- Intermodal shipping
- Light fleet efficiencies
 - SmartWay Certified Vehicles and Green Vehicle Guide
www.epa.gov/smartway/consumer/vehicles.htm

More information about fuel efficient technologies and strategies:

www.epa.gov/otaq/smartway/swresources.htm



Public Recognition for SmartWay Partners

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Radio, Print & TV Campaigns

SHIP SMARTER



An environmentally appealing way to transport goods that's also deliciously profitable.

SmartWay Transport helps shippers and for-hire carriers lower greenhouse gases and other emissions, while at the same time giving the average truck a fuel savings of \$2,000 per year.

To find out more about this new partnership, call for your info kit at 1-734-214-4767 or log onto www.epa.gov/smartway.



A new voluntary program from the U.S. Environmental Protection Agency

CALCULATE YOUR SAVINGS TO THE ENVIRONMENT. TO YOUR BOTTOM LINE.



For logistics managers, SmartWay[®] can add up to 7% in fuel savings.

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The Logo

- Tells the public, and current / potential business partners, that your company is a high environmental performer.
- Carriers qualify for logo with “score” of 1.0
- Shippers qualify with Shipper Index Factor of 50%





David Normandin
President
Brauns Express
10 Tandem Way
Horsedale, MA 01747

The Home Depot seeks to minimize its environmental footprint. A key focus of our environmental efforts is reduction of emissions related to freight handling. Accordingly, The Home Depot has elected to become a charter member of a new EPA Program called "SmartWay Transport."

- Fuel Savings
- Long Term Cost Savings
- Performance in THD Logistics: Sourcing activity
- "Green" Image - appeal to environmentally conscious customers such as THD as well as to growing groups of environmentally conscious investors
- Technical and infrastructure support from EPA
- Early around an industry standard for greenhouse gas emissions performance reporting

Since we have

Wayne G. Paul
Vice President Transportation Services



Linde



SmartWay
Transport Partner
Getting There With Cleaner Air

REPORT NO.: DATE:

DRIVER DATA			LOG HOURS			
#	CLOCK NO.	NAME		DAY 1	DAY 2	DAY 3
1			ON-DUTY DRIVING (PAID)			
2			ON-DUTY NON-DRIVING (PAID)			
			OFF DUTY PAID			
TRACTOR NO.: _____			TOTAL PAID HOURS			
TRAILER OUT: _____			LUNCH/LAYOVER NOT-PAID			
TRAILER IN: _____			TOTAL TRIP HOURS			

Circle One:
One Cargo Tank or One Tube Trailer

UN 1951, ARGON, REFRIGERATED LIQUID	2.2 NONFLAMMABLE GAS	SCF
UN 1977, NITROGEN, REFRIGERATED LIQUID	2.2 NONFLAMMABLE GAS	SCF
UN 1073, OXYGEN, REFRIGERATED LIQUID	2.2 (5.1) NONFLAMMABLE GAS	SCF
UN 2187, CARBON DIOXIDE, REFRIGERATED LIQUID	2.2 NONFLAMMABLE GAS	LSB
UN 1049, HYDROGEN, COMPRESSED	2.1 FLAMMABLE GAS	SCF
UN 1046, HELIUM, COMPRESSED	2.2 NONFLAMMABLE GAS	SCF
UN 1066, NITROGEN, COMPRESSED	2.2 NONFLAMMABLE GAS	SCF

LOAD WEIGHTS:	BEFORE TRIP:	AFTER TRIP:	DELIVERED:
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SPECIAL INSTRUCTIONS: _____

Using the Logo





Next Steps

SmartWay Tractors and Trailers

SmartWay Tractors:

- **Model Year 2007 or later engine**
- **Improved Aerodynamics**
- **Choice of idle reduction and tire technologies**



SmartWay Trailers:

- **Side Skirts**
- **Weight-saving technology**
- **Gap reducer**
- **Choice of tire technologies**

Innovative Financing Opportunities

- “SmartWay Upgrade Kit”: custom design a package of fuel-saving devices based on needs of your fleet
- SBA-guaranteed SmartWay loans
- State and local loan & grant programs
- NH??

Technology	Cost ¹	Benefits ² (Monthly Fuel Savings)	Monthly Loan Payment @ 9% for 48 months	Net Monthly Savings
Idle Reduction Device – Bunk Heater	\$1,500	\$215	\$37	\$178
Idle Reduction Device – Auxiliary Power Unit (APU)	\$8,500	\$330	\$212	\$118
Aluminum Wheels for Single Wide Tires	\$5,600	\$153	\$139	\$14
Trailer Aerodynamics	\$2,400	\$191	\$60	\$131
Exhaust Aftertreatment Device – Diesel Oxidation Catalyst (DOC)	\$1,200	\$0 (20-50% PM emission reduction)	\$30	--
Exhaust Aftertreatment Device – Particulate Matter (PM) Filter	\$6,000	\$0 (90% PM emission reduction)	\$149	--

National SBA Loan Program

- Partnered with Small Business Administration make loans available to purchase SmartWay Upgrade Kits
- SBA Express Loans from \$5,000 to \$25,000
- Offered through Bank of America, Business Loan Express, Superior Financial Group and other SBA lenders
- Focus on smaller trucking companies lacking capital
- Benefits include: fast processing, no collateral, easy application, flexible term
- But: 12% rate can look scary

epa.gov/smartway/financing.htm



Questions?



www.epa.gov/smartway

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